

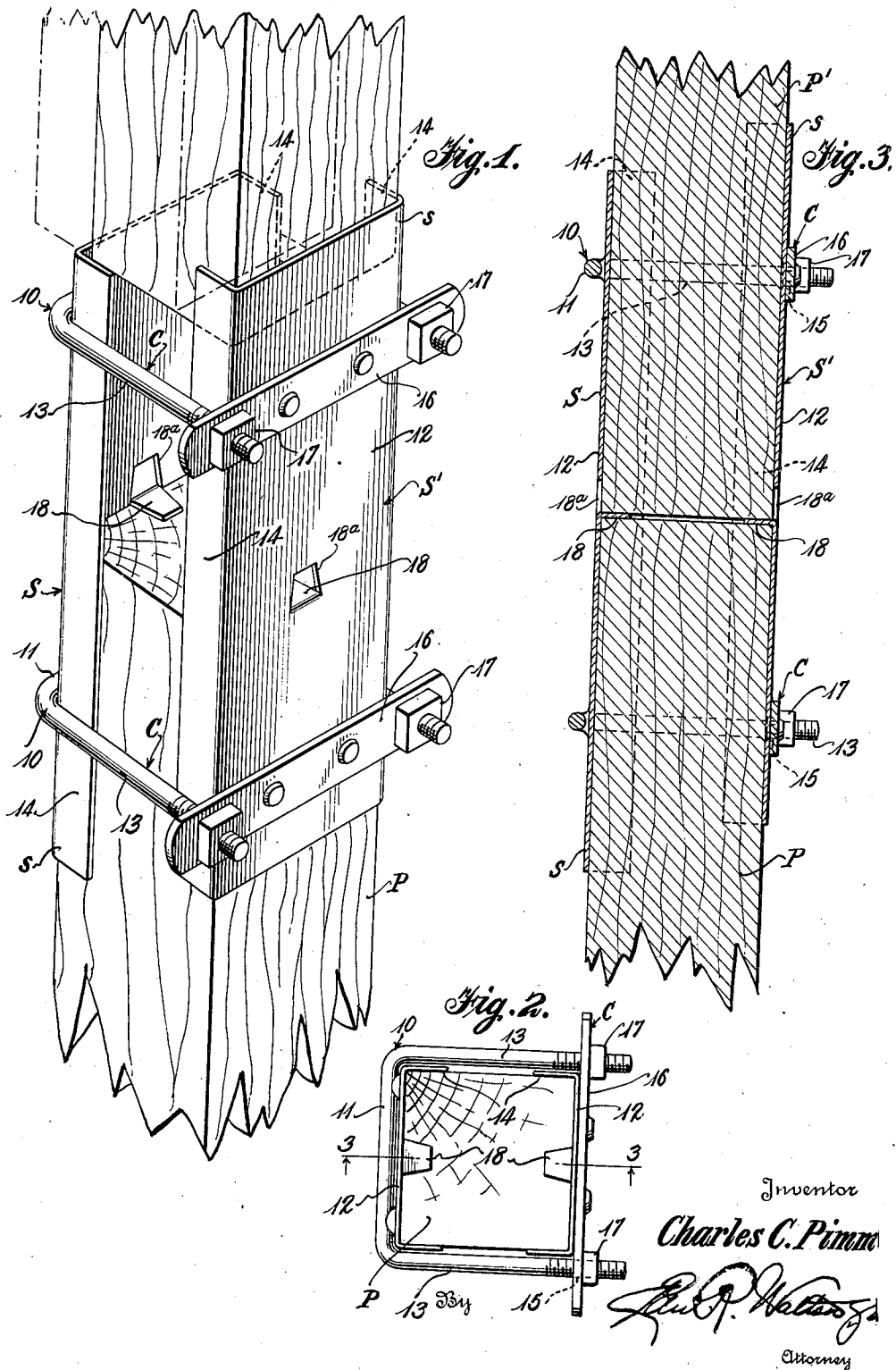
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POLE SPLICE CLAMP

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POLE SPLICE CLAMP

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4 Claims. (Cl. 304—40)

The present invention relates to pole splice clamps of the type shown in prior patents to Kingston 1,749,637 and Kingston et al. 1,863,247. These pole splice clamps are adapted for use in erecting scaffolding and the like where vertical poles or posts are employed and placed end to end to reach a desired height. Such pole splice clamps join the adjacent ends of the poles in a manner to permit their assembly and dismantling without injury to the poles and insure a strong and stable structure.

It is a material consideration in the manufacture, sale or use of pole splice clamps and the like that, in addition to efficiently performing their function, they must be relatively inexpensive in manufacture and upkeep and must possess such features as will minimize labor in their manipulation and setting up and permit ready handling, during such manipulation, by a single person.

The present invention has for its object the provision of a pole splice clamp which is an improvement over such devices now known or used. The main features of these improvements comprise two opposed clamp members or shoes formed to engage opposite sides of the poles at their adjacent ends, at least one of the members being provided intermediate its length with an inwardly extending projection, ledge or lip, which will rest upon the upper end surface of an upright pole to hold the clamp in position while the lower end of another pole can be inserted into the upper portion of the clamp; secondly, the upper end of one clamp member extending for a distance above the corresponding end of its opposite clamp member to permit the lower end of the second pole to be easily slipped into the upper end of the second pole extension; and, thirdly, in providing means for joining the opposite clamp members together which is simple and inexpensive, said means permitting the clamp members to remain loosely connected together when not in use, but which permit their ready disassembly for repairing or renewal of parts, said means also serving as means for binding the clamp members about the poles.

With the above and other objects in view which will more readily appear as the specification proceeds, the invention consists in whatever is described by or included within the terms or scope of the appended claims.

In the drawing, which illustrates the preferred embodiment of the invention as at present devised—

Figure 1 is a perspective view of the splice

clamp having a construction that achieves the objects of the invention in what is now considered to be its best form;

Figure 2 is a top plan view of the clamp as illustrated in Figure 1; and

Figure 3 is a vertical sectional view taken substantially on line 3—3 of Figure 1.

Referring more specifically to the drawing, in which like characters denote similar and like parts throughout the several views, the splice clamp of the present invention is made of metal and comprises two opposite and preferably similar or substantially similar clamp members or shoes S and S', each of channel shape in cross section and two spaced similar clamps C near the ends of the shoes, respectively. The clamp members or shoes are preferably made or formed of sheet metal of suitable gage to give the requisite strength.

The clamps C each comprise a substantially U-shaped bolt 10 (preferably round in cross section) suitably secured at its closed end 11 by welding to the outer face of the back wall 12 of the shoes S and having its legs 13 extending in the same direction of the side flanges 14 to pass through apertures in the outwardly projecting ends, respectively, of a cross-bar 15 fastened (by either riveting or welding) to the outer back side 12 of the other shoe S', thus the outwardly projecting ends form apertured projections 15. The outer ends of the legs 13 have nuts 17 threaded thereon, thus maintaining the assembled parts of the splice-clamp together and permitting the shoes S and S' to move relatively toward and from one another for clamping or unclamping purposes without complete disconnection of the parts. However, when repair or replacement of parts is necessary, complete separation of the shoes is readily permitted. Obviously, when desired, the nuts 17 may be with crank-form handles common in the art.

In the standard splice clamps, now made, the width of the back walls 12 of the shoes between the flanges 14 and the length of the bolt legs 13 are such as will accommodate a pole 4 inches by 4 inches in cross section; and, due to the fact that the flanges 14 are less than one inch in width, the devices may be used with poles 4" x 4"; 3" x 4"; or 2" x 4" in cross section. But, it is to be understood that the splice clamp of this invention may be made to suit poles of other dimensions as well as with those of cylinder shape without departing from the invention.

The clamping shoes S and S' are provided on their inner surface, preferably on the inner sur-

face of their back walls 12, with an inwardly extending lug or projection 18 to form a shoulder to rest upon the end surface of the pole P when the splice clamp has been placed thereon. These lugs or projections may be conveniently provided by striking out a portion of the area of the back surface 12 at opposite points of the shoes, respectively, intermediate their length and between the clamps C, and inturning said struck out portions so that they will assume a substantially right angle position with respect to the back wall of the shoes. These lugs 18, in effect, divide the area between the clamping shoes into sockets, each designed to receive respectively one end of adjacent poles P and P', as clearly shown in Figure 3. The provision of these lugs is of material and important advantage in the assembly of the scaffold parts as they enable one man to easily and readily place the splice clamp on the upper end of an erected pole P, the lugs 18 maintaining the splice clamp in that position on the pole without requiring the shoes to be tightened to grip the same until the next extension pole P' has been inserted in the upper end of the socket of the splice clamp. After such assembly has been effected, the nuts 17 may be tightened to firmly clamp or bind the plates against the ends of the pole to rigidly connect the same together.

To facilitate the application of this splice clamp to the ends of the pole P and the insertion of an upper extension P' into an already placed splice clamp, by one man, each clamp shoe has one end s thereof extending beyond the corresponding end of the other shoe to form a centering or positioning guide, as clearly shown in Figures 1 and 2. Since for manufacturing purposes the shoes S and S' are substantially the same length, the arrangement of the ends of the shoes just described, can be easily effected by longitudinally displacing or staggering one shoe slightly with respect to the other. Obviously, a splice clamp made in accordance with the present invention is identical at both ends and, therefore, it is immaterial which end is positioned upwardly or downwardly when assembling scaffold poles or the like. The openings 18a, formed by the striking out of the lugs 18, permit the insertion of a suitable tool or implement, such as a screw driver, bar, or the like, for loosening the end of the pole which may adhere or stick to the shoe, or conversely, when disassembling the parts or for other purposes as may be apparent in their use.

The arrangement above recited enables one man to place the pole and clamp together in proper position, as shown in dotted lines of Figure 1, by moving the end of the pole laterally to engage the inner face of a guide end s of one of the shoes and, being centered thereby, permitted to drop or slip into position between the two shoes.

It will be clear from the above that a very desirable splice clamp for scaffolding has been provided having novel and improved features of construction called for by the special requirements in assembling and dismantling scaffolding and, particularly, where one man is employed; and it is not known that the above described

improvements have been heretofore used or proposed.

In view of the above it is not intended to limit the invention to the precise construction and arrangement shown as changes might be made therein without departing from the spirit and scope, particularly as expressed in the appended claims.

What I claim is:

1. A pole splice clamp comprising oppositely acting members adapted to engage opposite sides of pole sections placed between them, means for connecting and for actuating said members toward each other and to bind and release adjacent ends of pole sections therebetween, and a lug on at least one of said members struck out of a portion of said member and forming an opening in said member, said lug being disposed intermediate the length of said member and lying between said members and adapted to engage an end surface of one of the poles whereby the splice clamp may be held in position on a pole before said members have been actuated to clamping position.

2. A pole splice clamp comprising oppositely acting members to engage opposite sides of pole sections at the adjacent ends thereof, means for connecting and for causing relative movement of the members toward one another to clamp said adjacent ends of pole sections together, the opposite ends of the clamp having the end of one member extending beyond the corresponding end of its opposite member, means on at least one of the members extending therebetween at a point intermediate the length of the members to rest against an end surface of a pole section.

3. In a pole splice clamp, a pair of substantially channel formed clamping shoes oppositely arranged to receive the adjacent ends of pole sections therebetween; a pair of substantially U-shaped bolts disposed adjacent opposite ends, respectively, of one of said shoes and having their closed ends secured to said shoe, the legs of said bolts extending in a direction toward the other of said shoes, perforated projections on said other of the shoes adjacent at opposite end portions thereof and extending laterally from the sides of the shoe and through which the free ends of said bolt legs extend; and means threaded on said bolt legs for moving said shoes toward each other in clamping position and for releasing the same.

4. A pole splice clamp comprising a pair of oppositely disposed channel formed shoes adapted to receive therebetween the adjacent ends of pole sections, means disposed at opposite end portions of the shoes for connecting said end portions and actuatable to move said shoes toward each other into clamping relation, and a lug on the channel face of at least one of said shoes and extending for a distance at substantially right angles to the shoe and positioned between said connecting and actuating means, said shoes being of substantially equal length and staggered with respect to each other so that the end of one shoe projects beyond the corresponding end of an opposite shoe.

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